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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/654,768	09/04/2003	Peter J. Suttie	67,036-025; B05756-AT6	6696

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EXAMINER

DESCHERE, ANDREW M

ART UNIT PAPER NUMBER

2836

DATE MAILED: 09/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/654,768

Applicant(s)

SUTTIE, PETER J.

Examiner

Andrew M. Deschere

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 16 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

The amendment filed 16 June 2006 has amended claims 1 and 9. Examiner's rejections on the grounds of nonstatutory obviousness-type double patenting are withdrawn.

The amendment filed 16 June 2006 has amended claims 5 and 10 to be in independent form. Additionally, claim dependencies have been corrected and new claims 14-18 have been added.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 14 and 16 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "rapidly" in claims 14 and 16 is a relative term which renders the claim indefinite. The term "rapidly" is not defined by the claims, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The APU speed adjustment rate is rendered indefinite by the term "rapidly".

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

Art Unit: 2836

the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 8, and 9 rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,278,262 ("Ulliyott") and United States Patent 4,456,830 ("Cronin").

Ulliyott discloses an APU system. A controller controls the rotational speed of the APU to match the steady-state rotational speed of a primary generator. The controller then connects the APU to both the load and primary generator and subsequently removes the primary generator (Abstract). The controller causes the APU to gradually accelerate when matching the frequency of the electrical generator (column 4, lines 14-19); the "controlled excursion" of the APU is shown in Figure 3 (column 3, lines 55-60). Electronic controller 26 is communicatively connected to breaker 22 for primary AC source 30 and APU controller 24 (Figure 1). The APU system may be used to provide back-up power to the electrical power system of an aircraft (column 1, lines 21-23).

Although Ulliyott discloses a controlled acceleration of the APU, keeping the acceleration below a determined "rate limit" is not taught. Cronin teaches the use of logic schedules to control the rate of change of frequency and voltage when bringing a generator up to speed (column 5, lines 46-62). It would have been obvious to one of ordinary skill in the art at the time of the invention to limit the rate at which the APU of Ulliyott is accelerated in order to avoid mechanical stress and malfunction caused by overly rapid acceleration.

Claims 2, 11, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Ulliyott and Cronin in view of United States Patent 6,365,982 ("Iles"). Ulliyott discloses an APU system with frequency and speed matching according to a primary generator, but does not teach the use of a look-up table that corresponds target APU speed with APU frequency. Iles teaches that a look-up table may be used with an engine. The look-up table matches a desired speed

Art Unit: 2836

with a frequency. The speed to be set is linked to an engine operating state, such as idle (Abstract). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a look-up table in the invention of Ulyyott if a discrete control scheme were desired.

Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Ulyyott and Cronin in view of United States Patent 5,303,541 ("Goff"). Ulyyott discloses an APU system with frequency and speed matching according to a primary generator, but does not teach the use of a fuel schedule in operating the APU. Goff teaches an APU using a fuel schedule to maintain a proper fuel to air ratio, providing a proper operating speed of the APU (column 1, lines 41-61). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a fuel schedule in the invention of Ulyyott to maintain the gradual acceleration when matching the frequency of the electrical generator.

Claims 5, 6, 10, 15, 17, and 18 rejected under 35 U.S.C. 103(a) as being unpatentable over Ulyyott in view of United States Patent Application Publication 2003/0075982 ("Seefeldt"). Ulyyott discloses an APU system with frequency and speed matching according to a primary generator that provides power to a load once the APU speed has been increased to a set level (column 1, lines 46-58), but does not teach that a load device may be shut down during power transfer. Seefeldt teaches a transfer switch for a power transfer system that allows for an alternative power source in the event of failure of the main supply. Seefeldt also provides load shedding so that the maximum loading on the alternative power source is limited (Abstract; paragraphs 3-6). A combination of Ulyyott and Seefeldt would adjust the load on the system power supply based upon the connection of the APU or the primary generator, shedding loads

Art Unit: 2836

as needed. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the APU system of Ulliyott with the load shedding of Seefeldt to prevent excessive loading on the APU.

Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Ulliyott, Iles, and Seefeldt. See rejection of claims 2 and 5 above.

Claims 3 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Ulliyott, Cronin, and Seefeldt. See rejection of claims 1 and 5, and 9 and 10 above.

Response to Arguments

Applicant's arguments with respect to claims 1, 3, 9, and 12 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that Seefeldt is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, load shedding is well known in the art, and would be obvious to include with a generator to prevent overloading.

Conclusion

Art Unit: 2836

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M. Deschere whose telephone number is (571) 272-8391. The examiner can normally be reached on M-F 8:30-6:00, every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571) 272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMD



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